

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Official Action dated October 31, 2005. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

Claims 1-19 are under consideration in this application. Claims 1-18 are being amended, as set forth in the above marked-up presentation of the claim amendments, in order to more particularly define and distinctly claim applicants' invention. A new claim 19 is being added to recite other embodiments described in the specification.

The claims are being amended to correct formal errors and/or to better recite or describe the features of the present invention as claimed. All the amendments to the claims are supported by the specification. In particular, claim 3 is described on page 11, lines 12-18; claim 4 is described on page 11, line 12 to page 12 line 2 and depicted in Fig 5; the term "elastic matching" recited in claims 5-6 and 10 is described on page 16, line 12 to page 17, line 3; claim 15 is described on page 12, lines 3-12; claim 16 is described on page 16, lines 12-19 and depicted in Fig. 10; claim 17 is described on page 10, line 11 to page 11, line 4; and claims 18-19 are described on page 18 lines 3-5 and depicted in Fig 11.

Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

Formality Rejection

Claims 11-18 were rejected under 35 U.S.C. § 101 for failing to recite "a computer readable medium" with the "program," and claims 1-6, 9-10 and 15-18 were rejected under 35 U.S.C. § 112, first paragraph, as being not enabled by the specification. As indicated, the claims are being amended as required by the Examiner. Accordingly, the withdrawal of the outstanding informality rejection is in order, and is therefore respectfully solicited.

Allowable Subject Matter

Claims 16-18 would be allowed if rewritten to overcome the following 101 and 112 rejections.

Prior Art Rejection

Claims 1, 3-7 and 9-14 were rejected under 35 U.S.C. § 102(b) as being anticipated by an article entitled “Recognizing Characters in Scene Images” by Ohya et al. (hereinafter “Ohya”), claims 2 and 8 were rejected under 35 USC § 103(a) as being unpatentable over Ohya, and claim 15 was rejected over Ohya in view of an article entitled “A Method for Recognizing Character Strings from Maps Using Linguistic Knowledge” by Akira et al. (hereinafter “Akira”) . These rejections have been carefully considered, but are most respectfully traversed, as more fully discussed below.

The method for searching at least one character string image (e.g., “大統領選 混迷 続く” in Figs. 10-12) embedded in an image (e.g., 701 in Fig. 11 or 800 in Fig. 12) of the invention (for example, the embodiment depicted in Figs. 3 & 11), as now recited in claim 1, comprising: providing the image; detecting a character region 702 in the image based upon a shape thereof; extracting a first **image** feature (e.g., the image of “大使館” in a box 703) of the character region 702; receiving an input of a *character string* of interest by a user (e.g., “大統領” in a text input region 706 for keyword entry in Fig. 11; p.7, line 17); extracting a second **image** feature (e.g., the image of “大統領”) from the input character string; comparing the first **image** feature with the second **image** feature to determine a level of similarity 704 (e.g., 47%); and outputting the character region 702 or the input image 701 comprising the character region 702 based on the level of similarity.

The invention recited in claim 7 is directed to an apparatus for searching character string images in an image according to the method recited in claim 1.

The invention recited in claim 11 is directed to a program stored on a computer readable medium for processing of character search in an image according to the method recited in claim 1.

The invention searches scenes/images comprising a user input keyword (a character sting) by the steps of : (A) receiving a *character string* entered by a user; (B) extracting a *character string* from a targeted image; (C) comparing IMAGES of the character strings (especially the image features in the vertical and horizontal directions) of any scenes having a respective character string similar to the one entered/designated by the user. Especially, comparison of the character strings is done by using the “image feature” (feature of string

shape ex. Fig 10) of the “character strings”. In other word, the invention treats the character sting as a image through the process, i.e., *character-string-originated*., and never recognizing each character as text in the character strings or text-matching based on the recognition results.

In contact, Ohya’s recognizes/extracts each *character* in an character string, i.e., *character-originated* (e.g., “U”, “C”, “0” in Fig. 6 Example of extracting and recognizing characters” on p. 219). To achieve its purpose, Ohya extracts a plurality of character candidates for each character (p. 216, Section B. “Detecting Character Candidate Regions”) and checks the adjacent relation among character candidates (p. 217, right col., 1st Para) to decide the recognition result. Ohya neither receive an user input entry as the (A) feature, nor output the retrieval result as the (C) feature. Therefore, In other word, Ohya only try to recognize each character, but not comparing images or image features based upon the image of the user entered character strings.

Akira only relates to how to recognize character from the map and fails to compensate for Ohya’s deficiencies.

Applicants contend that none of the cited references or their combinations teaches or discloses each and every feature of the present invention as disclosed in independent claims 1, 7 and 11. As such, the present invention as now claimed is distinguishable and thereby allowable over the rejections raised in the Office Action. The withdrawal of the outstanding prior art rejections is in order, and is respectfully solicited.

Conclusion

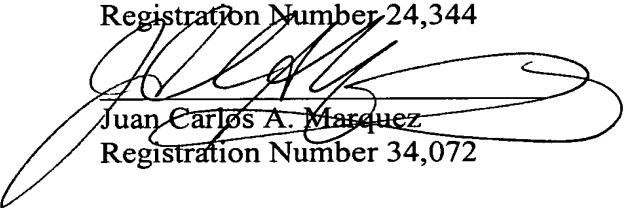
In view of all the above, clear and distinct differences as discussed exist between the present invention and the prior art references upon which the rejections in the Office Action rely, Applicant respectfully contends that the prior art references cannot anticipate the present invention or render the present invention obvious. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance

of the above-captioned application, the Examiner is invited to contact the Applicant's undersigned representative at the address and phone number indicated below.

Respectfully submitted,

Stanley P. Fisher
Registration Number 24,344


Juan Carlos A. Marquez
Registration Number 34,072

REED SMITH LLP
3110 Fairview Park Drive, Suite 1400
Falls Church, Virginia 22042
(703) 641-4200

January 25, 2006

SPF/JCM/JT